

Compaction is applied to the pervious slab in one of two methods.

One-step process requires the motorized roller screed to achieve 80% to 90% of the compaction with the screed itself. If this is reached in mixtures using 3/8" crushed aggregate, a 4" penetrometer will indicate more than 130 pounds of pressure to depress 3/4 inches deep. This requires a screed tube that is 6 inches or more in diameter.

As a 4 inch diameter screed tube is used, the same pervious mixture will indicate about 110 pounds of pressure to depress the same instrument to the same depth. Without sufficient compaction, the process should be followed by a full-width static roller in a two-step method.

The slab is seriously compromised if inadequate compression is applied in a one-step process. Some would attempt to apply this compression with a cross roller, loaded to excessive weight. The compaction is still insufficient, elevating the risk of raveling. The slab surface is left lumpy in surface elevation. The cross roller leaves marks at the edge which requires more and different tooling processes to remove. These conditions require more exposure time during the installation process, elevating the threat of evaporation and raveling.

Some pervious technicians will pretend to be craftsmen and still disregard the limitations of their equipment. That's one of the main problems in the formative nature of the pervious pavement industry.



The 6 inch tube showing 147, 136 & 135. Average: 134 pounds.



The 4 inch tube showing 115, 110, 108, 117 & 106.

Average: 111 pounds.

Average numbers were produced from data collected during three days of testing in pervious mixtures using 3/8" crushed limestone.

